

# SMD Schottky Barrier Diode

## CDBUR0140R(RoHs Device)

$I_o = 100 \text{ mA}$   
 $V_R = 40 \text{ Volts}$

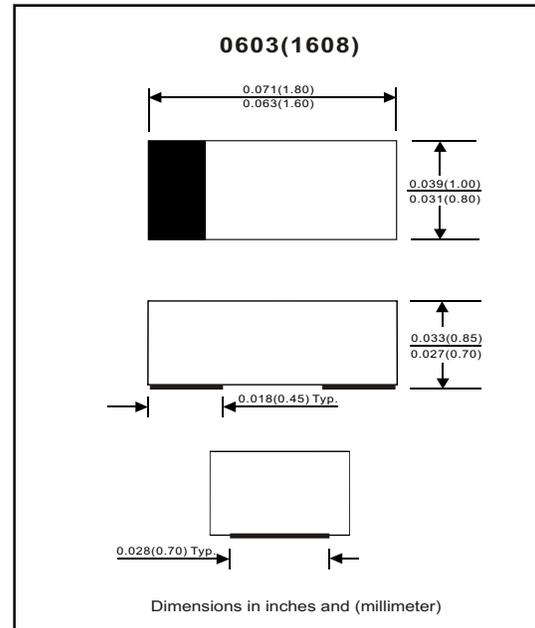


### Features

- Low reverse current.
- Designed for mounting on small surface.
- Extremely thin / leadless package.
- Majority carrier conduction.

### Mechanical data

- Case: 0603(1608) standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight: 0.003 gram(approx.).



### Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter                         | Conditions  | Symbol    | Min | Typ | Max  | Unit             |
|-----------------------------------|---|-----------|-----|-----|------|------------------|
| Repetitive Peak reverse voltage   |   | $V_{RRM}$ |     |     | 45   | V                |
| Reverse voltage                   |   | $V_R$     |     |     | 40   | V                |
| Average forward rectified current |   | $I_o$     |     |     | 100  | mA               |
| Forward current, surge peak       | 8.3 ms single half sine-wave superimposed on rate load (JEDEC method) | $I_{FSM}$ |     |     | 1    | A                |
| Storage temperature               |   | $T_{STG}$ | -40 |     | +125 | $^\circ\text{C}$ |
| Junction temperature              |   | $T_j$     |     |     | +125 | $^\circ\text{C}$ |

### Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter                     | Conditions                                       | Symbol | Min | Typ | Max  | Unit          |
|-------------------------------|--|--------|-----|-----|------|---------------|
| Forward voltage               | $I_F = 10\text{mA}$                              | $V_F$  |     |     | 0.45 | V             |
| Reverse current               | $V_R = 10\text{V}$                               | $I_R$  |     |     | 1    | $\mu\text{A}$ |
| Capacitance between terminals | $f = 1 \text{ MHz}$ , and 10 VDC reverse voltage | $C_T$  |     | 6   |      | pF            |

## RATING AND CHARACTERISTIC CURVES (CDBUR0140R)

Fig. 1 - Forward characteristics

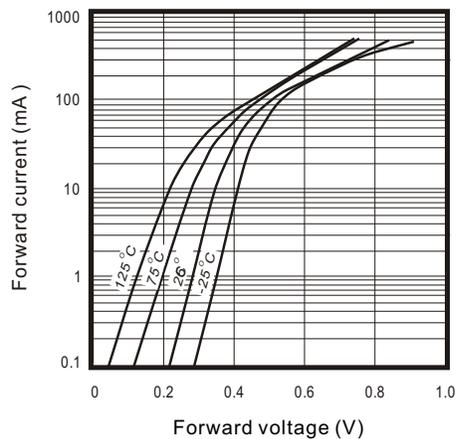


Fig. 2 - Reverse characteristics

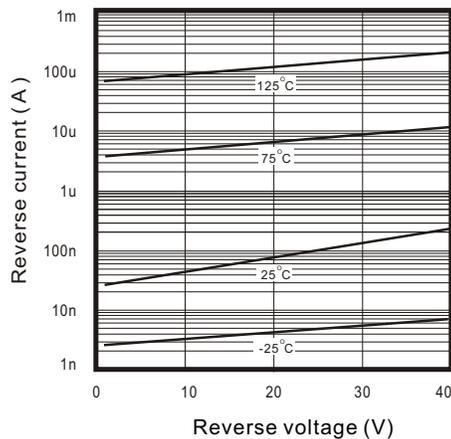


Fig. 3 - Capacitance between terminals characteristics

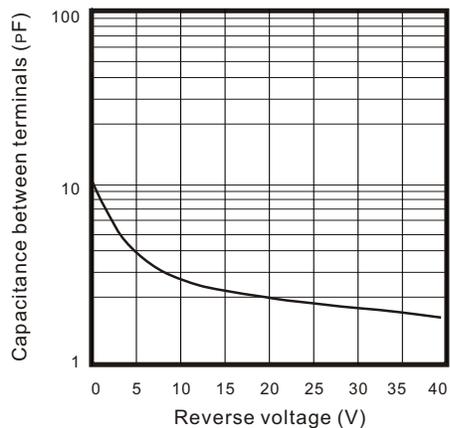


Fig.4 - Current derating curve

